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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,410	11/08/2001	Ryosuke Furue	Q67066	5224
7590 01/30/2004				
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, NW Washington, DC 20037-3213			EXAMINER GAGLIARDI, ALBERT J	
			ART UNIT 2878	PAPER NUMBER

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,410

Applicant(s)

FURUE, RYOSUKE

Examiner

Albert J. Gagliardi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 7-11 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Comment on Submissions

1. The response filed 20 November 2003 has been entered.

Election/Restrictions

2. Newly submitted claims 7-11 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Newly submitted claims 7-11 are directed to a combination invention including a stimuable phosphor sheet (new subcombination) that is useable with a radiation image readout apparatus (the originally presented subcombination).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 7-11 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

3. Claim 3 is objected to because of the following informalities:

Regarding claim 3, the term “ananisotropic” should be --an anisotropic--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller *et al.* (US 6,373,074 B1).

Regarding claim 1, *Mueller* discloses (Figs. 1, 4, and 6-7) a radiation image information recording/reading apparatus comprising: an image recording unit (70) for recording image

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information in a stimuable phosphor sheet by irradiating radiation onto the sheet (col. 10, lines 46-51); a stimulating main scan means (10, 11) for the sheet with excitation light; a vertical scan means (70, 71), 73); a photoelectric detection means (12) for detecting emitted light from a side of irradiation of the excitation light; and an erasing means (74); and wherein the excitation light main scan means comprises a linear light source (11) for emitting light in the form of fan beams (see generally Fig. 4) and the detection means comprises a line sensor (12).

Regarding the scan means being located on a side opposite a side of the irradiation of the radiation, the examiner notes that while *Mueller* does not specifically identify the particular direction from which the radiation may be irradiated, the embodiment as shown according to Fig. 6 disclosing two scan means (one on each side of the sheet) inherently suggests that the particular side on which the scan means is located is not critical to the invention and therefore, absent some degree of criticality, would have been a matter of routine design choice within the skill of a person of ordinary skill in the art depending on the needs of the particular application.

Regarding claim 6, *Mueller* discloses that the light source may comprise a laser diode array and a cylindrical lens (see generally Fig. 4 and col. 7, lines 53-60).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Mueller* as applied above, and further in view of Kohda *et al.* (US 5,151,604).

Regarding claim 2, although *Mueller* does not provide specific details of the specific type of stimuable phosphor sheet used in the apparatus, the examiner notes that a wide variety of stimuable phosphors sheets are known in the art, including sheets having a phosphor layer and a reflection layer wherein the phosphor layer is located closer to the excitation light scan means (see for example *Kohda* at Fig. 1-(3) and col. 5, lines 38-60). As such, it would have been a

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matter of routine design choice within the skill of a person of ordinary skill in the art to utilize one of the known functionally equivalent stimuable phosphor sheets, as suggested by *Kohda*, so as to produce a radiation image with high sensitivity.

Regarding claims 7-11, although the examiner has considered the claims to be directed to an invention non-elected by original presentation, the examiner notes that even if the claims were considered, such claims would not impart patentability to the readout apparatus because the inclusion of a material or article worked upon by a structure being claimed does not impart patentability to the claims. *In re Young*, 75 F.2d 966, 25USPQ 69 (CCPA 1935); see also MPEP 2115).

Regarding claims 12-13, *Mueller* suggests arrangements wherein the detecting means and scan means are located on only one side of the sheet (see for example Figs. 1 and 7).

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Mueller* and *Mueller* in view of *Kohda* as applied above, and further in view of *Goodman et al.* (US 5,874,744).

Regarding claim 3 and 4, although *Mueller* and *Kohda* do not provide specific details of the specific type of stimuable phosphor sheet used in the apparatus, the examiner notes that a wide variety of stimuable phosphors sheets are known in the art, including anisotropic phosphor sheets (see for example *Goodman* at Fig. 1; col. 1, lines 12-38; and col. 2, lines 5-10). As such, it would have been a matter of routine design choice within the skill of a person of ordinary skill in the art to utilize one of the known functionally equivalent stimuable phosphor sheets, as suggested by *Goodman*, so as to produce a radiation image with high sensitivity.

Note: although claim 2-4 have been rejected on the basis of prior art, the examiner notes that regardless of the obviousness of the use of a specific stimuable phosphor sheet, such claims would not otherwise be patentable because it has been held that the material or object manipulated in an apparatus (in this case the stimuable phosphor sheet) does not impart patentability to the apparatus (see MPEP 2115).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Mueller* and *Mueller* in view of *Kohda* and *Mueller* in view of *Kohda* and *Goodman* as applied above, and further in view of *Ohta* (US 5,381,017).

Regarding claim 5, although *Mueller*, *Kohda*, and *Goodman* do not disclose the use of a radiation absorption plate such absorption plates are well known. *Ohta*, for example, discloses (Fig. 1A) a radiation image storage apparatus (1) comprising a radiation absorption plate placed close to the surface of the phosphor sheet (10) on the side opposite the side of the radiation irradiation and which is moved away from the sheet after the time of radiation irradiation (i.e., during readout) (col. 4, lines 24-30 and lines 54-59). *Ohta* teaches that such plate allows for improved imaging by reducing back scattered radiation (col. 4, lines 60-63). As such, it would have been obvious to modify the device so as to utilize an absorption plate, as suggested by *Ohta* so as to allow for an improved image.

Regarding claim 14, *Ohta* inherently (or obviously) suggests that the radiation plate is moved away from the storage apparatus during readout when the recording sheet is removed from the cassette (see generally col. 1, lines 48-68). Additionally one skilled in the art would appreciate that since radiation absorbing plates made of lead are generally impervious to stimulating readout light, it would be obvious to one of ordinary skill in the art to move such

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sheet away during readout. As such, a moving device would have been an obvious if not inherent aspect of the system suggested by *Mueller, Kohda, Goodman* and *Ohta* as applied above so as to allow for the stimulating light to reach the storage sheet.

Response to Arguments

8. Applicant's arguments filed 11 November 2003 have been fully considered but they are not persuasive.

9. Regarding applicant's argument that there are benefits to locating the scan means and excitation source on a side opposite the side of the sheet which is irradiated, the examiner notes that such arguments are not sufficient to overcome the suggestion of *Mueller* that the scan means and excitation source may be located on either side of the sheet (an inherent aspect of the apparatus utilizing two-scan means as suggested by *Mueller* (see generally Fig. 7) is that one of the scan means would be located on a side opposite to the irradiation source. While the examiner notes that it is not clear from the disclosure of *Mueller* which side of the sheet the scan means is located relative to the irradiation means in a single-scan means device, it is clear that the scan means may be located on either side, albeit one side may be preferred over the other. The examiner notes however that even if one side is preferred over the other, it has been held that disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In *re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In *re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). See MPEP 2123. As such, even if one were to consider an arrangement wherein the scan means is located on the side opposite the irradiation

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source as a less preferred embodiment, such embodiment would still be considered an obvious embodiment.

10. Regarding applicant's argument that *Ohta* does not show that the absorption plate is moved, the examiner notes that an inherent aspect of removing the cassette for read-out is that the absorption plate is also moved.

11. All of applicant's arguments having been addressed, the rejection is maintained.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert J. Gagliardi whose telephone number is (571) 272-2436. The examiner can normally be reached on Monday thru Friday from 9 AM to 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1565.



Albert J. Gagliardi
Primary Examiner
Art Unit 2878

AJG